

Work Order ID 48590C

Friday, June 26, 2009 11:51:39 AM



Page 1

Item ID: D3822-3KIV

Accept



Setup Start



Revision ID: *BC 06*

Stop



Item Name: Vertical Tunnel, Aft Center-Ivory

Start Date: 7/15/2009 Start Qty: 3.00



Cust Item ID:

Required Date: 8/3/2009 Req'd Qty: 3.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr

100

0.00



Thermoform

Memo

0.00

Thermoforming Machine

Machine Set-Up

BB 09/07/02
BB 09/07/07

110

0.00



Thermoform

Memo

0.00

Thermoforming Machine

1-Cut Sheet to required Blank size

M109703 BB 09/07/02 X3
M109703 BB 09/07/07 X2

120

0.00



Thermoform

Memo

0.00

Thermoforming Machine

Thermoform as per Dwg and Folio #FTA027 using tool DT9072

Dwg Rev: *S*
Folio Rev: *A*

BB 09/07/02 X3
BB 09/07/07 X2 SCRAP PRO →

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3822-3K1V PAR #: NA Fault Category: Thermal NCR: (Yes) No DQA: NA Date: 09.07.10
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: NA Date: 08.08.17






NCR: <u>48590C</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>09/07/09</u>	<u>120</u>	<u>BLANKISHED PART TO MUCH</u> <u>Humidity in SHET</u> <u>Not dried enough.</u> <u>RC: process in the works.</u>	<u>[Signature]</u>	<u>DRY SHET in oven.</u> <u>Scrap Qty 2</u> <u>Replace Qty 2</u> <u>m 109 703</u>	<u>09/07/09</u> <u>[Signature]</u>	<u>S</u> <u>09/07/09</u>	<u>[Signature]</u>	<u>[Signature]</u>



NOTE: Date & initial all entries




Work Order ID 48590C

Friday, June 26, 2009 11:51:39 AM

Page 2

Item ID: D3822-3KIV Accept  Setup Start 
Revision ID: BC 126 Stop 
Item Name: Vertical Tunnel, Aft Center-Ivory
Start Date: 7/15/2009 Start Qty: 3.00  Cust Item ID:
Required Date: 8/3/2009 Req'd Qty: 3.00  Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start 
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130  QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.00							
			BB 09/07/01 X3						
140  QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00							
			Pl 09/07/01 X3						
150  Thermoform Thermoforming Machine	1-Trim to finished dimensions as per Dwg Memo	0.00 0.00							
			BB 09/07/01 X3						

Work Order ID 48590C

Friday, June 26, 2009 11:51:39 AM

Page 3

Item ID: D3822-3KIV

Accept

Setup Start

Revision ID: *BC 29*

Stop

Item Name: Vertical Tunnel, Aft Center-Ivory

Start Date: 7/15/2009 Start Qty: 3.00

Cust Item ID:

Required Date: 8/3/2009 Req'd Qty: 3.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC2- Inspect parts off machine *FAI/FAIB*

0.00



QC

Memo

0.00

Quality Control

BB 09/07/09

170

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

=> 807/07/09 (x3)

180

Identify as per dwg & Stock Location: _____

0.00



Packaging

Memo

0.00

Packaging

9/17/09 (34) SP

Picklist Print

Page 1

Friday, June 26, 2009 11:51:38 AM

Work Order ID: 48590C



Parent Item: D3822-3KIVRev *DC 09*



Parent Item Name: Vertical Tunnel, Aft Center-Ivory

Start Date: 7/15/2009

Required Date: 8/3/2009

Comments: Est Rev:C Add Colour Code 09-06-02 DL

Start Qty: 3.00

Required Qty: 3.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MKYD6185S.080-P3-62015		Purchased	No			100	sf	0.0000	15.7579			
6185 KYDEX .080"												

BB 09/07/09

M 109703

Date: Monday, 15/06/2009 4:19:50 PM
 User: Julie Dawson

Process Sheet

Customer :	CU-DAR001 Dart Helicopters Services	Drawing Name :	VERTICAL TUNNEL AFT CENTER, IVORY
Job Number :	48590C		
Estimate Number :	13587		
P.O. Number :		Part Number :	D38223KIV
This Issue :	15/06/2009	Drawing Number :	D3822-3
Prsht Rev. :	NC	Project Number :	
First Issue :	//	Drawing Revision :	
Previous Run :	47672C	Material :	MKYD6185S080P362015
	Type :	Due Date :	22/06/2009
	THERMOFORMING	Qty:	3 mlf
Written By :		Um:	Each
Checked & Approved By :	JLD 09.06.15		
Comment :	Est. A New Issue 08/09/17 DL Rev B Dwg Update 09/02/09 DL verified by:DD Est. Rev C Add Colour Code 09/06/02 DL		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	MKYD6185S080P362015	6185 KYDEX .080"
-----	---------------------	------------------



Comment: Qty.: 5.4170 sf(s)/Unit Total: 27.0850 sf(s)
 6185 Kydex .080" Ivory

M109703 BB

2.0	HAND FINISH TH	HAND FINISHING THERMOFORMING
-----	----------------	------------------------------

**Comment:** HAND FINISHING THERMOFORMING

1) Machine set up

BB 09/07/01

3.0	HAND FINISH TH	HAND FINISHING THERMOFORMING
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**Comment:** HAND FINISHING THERMOFORMING

1) Cut sheet to required blank size

BB 09/07/01 X2 X3

4.0	THERMOFORMING	THERMOFORMING MACHINE
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**Comment:** THERMOFORMING MACHINE

Thermoform as per Dwg. D3822-3 and folio FTA 027 using tool DT 9072

Dwg. Rev. S
 Folio Rev. A

BB 09/07/01 X3
 BB 09/07/01 X2 SCRAP.
 PRO.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 15/06/2009 4:19:51 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: VERTICAL TUNNEL AFT CENTER, IVORY

Job Number: 48590C

Part Number: D38223KIV

Job Number:



Seq. #:	Machine Or Operation:	Description :
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5.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

Visually inspect for proper formation of each part

BB 09/07/07 (X3)

6.0	QC8	SECOND CHECK
-----	-----	--------------



Comment: SECOND CHECK

Pl. 09/07/07 (X3)

7.0	HAND FINISH TH	HAND FINISHING THERMOFORMING
-----	----------------	------------------------------



Comment: HAND FINISHING THERMOFORMING

1) Trim to Finished Dimensions

BB 09/07/07 (X3)

8.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

Check dimensions to ensure conformity to drawing tolerances.

BB 09/07/09 (X3)

9.0	QC5	INSPECT WORK TO CURRENT STEP
-----	-----	------------------------------



Comment: INSPECT WORK TO CURRENT STEP

809/07/09 (X3)

10.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

11.0	QC21	FINAL INSPECTION/W/O RELEASE
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Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 48590C
Description: vertical tunnel Alt centre Twelve		Part Number: D3822-310
Inspection Dwg: D3822-3 Rev: C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than _____"	✓			
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: BB

Date: 09/07/09

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.050	Min	.078	✓			
.020	Min	.065	✓			
.035	Min	.057	✓			
0.4	Min Typ	.478	✓			

Measured by: BB

Date: 09/07/09

Audited by: C

Date: 09/07/09

Prototype Approval: n/a

Date: 11/15

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/DL	

8 7 6 5 4 3 2 1

D

C

B

D

C

B

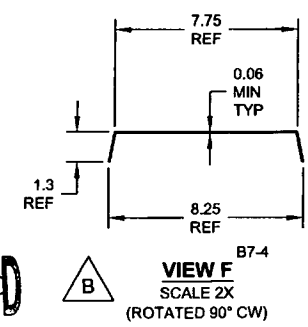
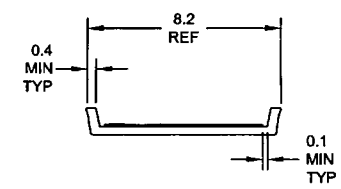
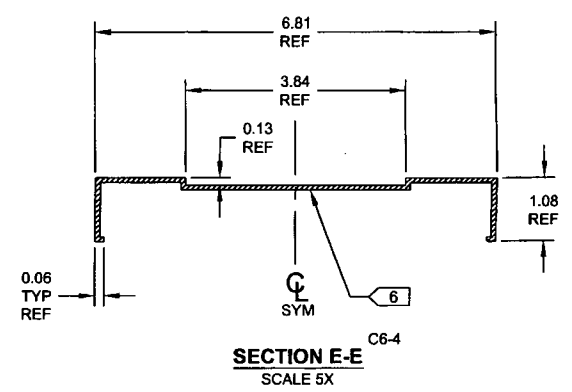
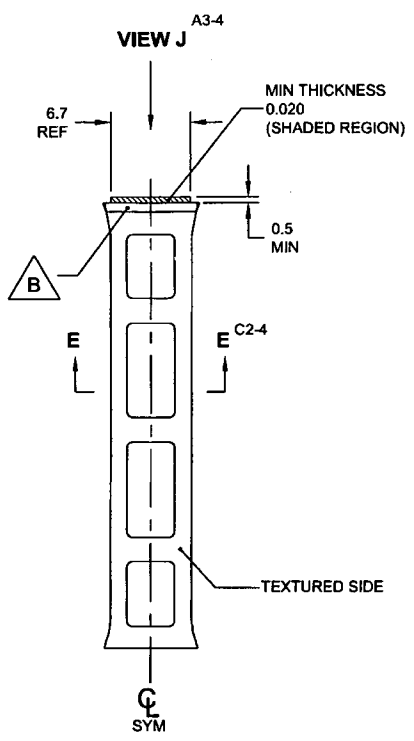


37.8
REF

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 1485 DEC

A1-4
VIEW F

D3822-3 VERTICAL TUNNEL, AFT CENTER
(BELL 206 A/B)

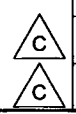


B
VIEW J
SCALE 2X

RELEASED
8/6/5/22 MP

B
VIEW F
SCALE 2X
(ROTATED 90° CW)

- NOTES:**
- 1) MATERIAL: SEE TABLE
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY WITH DART P/N (SEE TABLE) USING VIBRATING STYLUS
 - 7) WEIGHT: 1.1 lbs
 - 8) TOOLING: THERMOFORM PER MOLD DT9072 PER DART QSI 022. TRIM PER MOLD
 - 9) MINIMUM THICKNESS: 0.050" UNLESS OTHERWISE NOTED



PART NUMBER	DESCRIPTION
D3822-3KIV	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, IVORY #62015 (MKYD6185S.080-P3-62015)
D3822-3KGY	KYDEX 6185, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 (MKYD6185S.080-P3-52068)

DESIGN	PA	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	PA		
CHECKED	PA	DRAWING NO.	REV. C
MFG. APPR.	PA	D3822	SHEET 4 OF 6
APPROVED	PA	TITLE	SCALE
DE APPR.	PA	VERTICAL TUNNEL (BELL 206 A/B)	NTS
DATE	09.05.05	COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

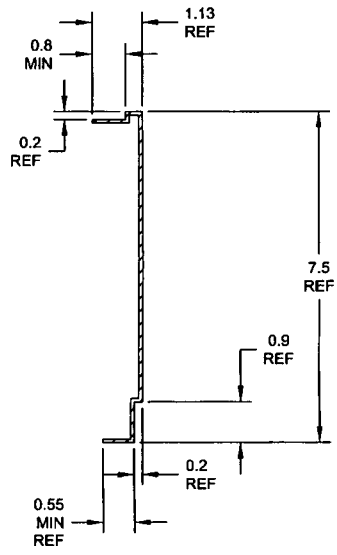
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D

C

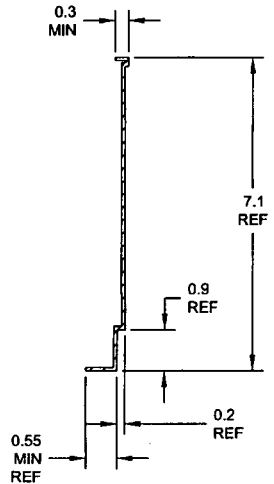
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A



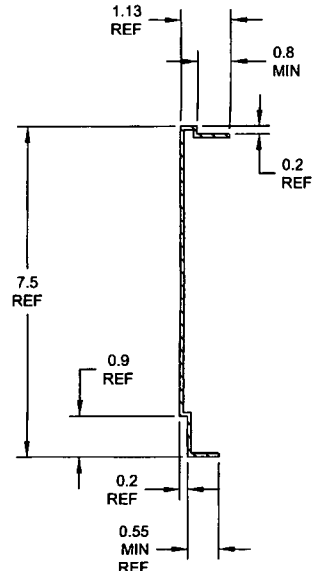
SECTION A-A

C6-1



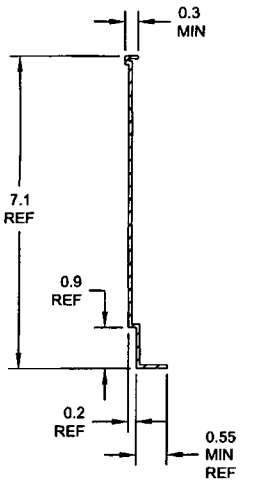
SECTION B-B

C6-1



SECTION C-C

C4-2



SECTION D-D

C4-2

SHOP COPY
RETURN TO
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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 48570

RELEASED
09/05/05

DESIGN	RA	DART AEROSPACE LTD	
DRAWN	RA	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RA	DRAWING NO.	REV. C
MFG. APPR.	RA	D3822	SHEET 3 OF 6
APPROVED	RA	TITLE	SCALE
DE APPR.	RA	VERTICAL TUNNEL (BELL 206 A/B)	NTS
DATE	09.05.05	<small>COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

8 7 6 5 4 3 2 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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